NORTH CAROLINA DIVISION OF AIR QUALITY

Application Review

Issue Date: DRAFT

Region: Asheville Regional Office
County: Burke
NC Facility ID: 1200094
Inspector's Name: Patrick Ballard
Date of Last Inspection: 01/10/2020
Compliance Code: 3 / Compliance - inspection

Facility Data

Applicant (Facility's Name): Molded Fiber Glass Company/North Carolina

Facility Address:
Molded Fiber Glass Company/North Carolina
213 Reep Drive
Morganton, NC 28655

SIC: 3089 / Plastics Products, Nec
NAICS: 326199 / All Other Plastics Product Manufacturing

Facility Classification: Before: Title V **After:** Title V
Fee Classification: Before: Title V **After:** Title V

Permit Applicability (this application only)

SIP: 02D .0503
NSPS: Dc
NESHAP: MACT DDDDD
PSD:
PSD Avoidance:
NC Toxics:
112(r):
Other:

Contact Data

Facility Contact	Authorized Contact	Technical Contact
Jeremy McFalls HSE Manager (828) 584-4974 213 Reep Drive Morganton, NC 28655	Allen Finchum Plant Manager (828) 584-4974 213 Reep Drive Morganton, NC 28655	Jeremy McFalls HSE Manager (828) 584-4974 213 Reep Drive Morganton, NC 28655

Application Data

Application Number: 1200094.20B
Date Received: 12/07/2020
Application Type: Modification
Application Schedule: TV-Significant

Existing Permit Data
Existing Permit Number: 06218/T20
Existing Permit Issue Date: 08/20/2020
Existing Permit Expiration Date: 09/30/2023

Total Actual emissions in TONS/YEAR:

CY	SO2	NOX	VOC	CO	PM10	Total HAP	Largest HAP
2019	0.0200	3.47	19.11	2.92	0.0300	12.93	11.39 [Styrene]
2018	0.0200	3.03	17.90	2.54	0.0300	11.36	10.32 [Styrene]
2017	0.0100	2.53	14.79	2.13	0.0300	9.72	9.31 [Styrene]
2016	0.0100	2.24	14.81	1.88	0.0300	8.90	8.43 [Styrene]
2015	0.0200	2.52	28.26	2.11	0.2100	14.59	13.57 [Styrene]

Review Engineer: Jenny Sheppard

Review Engineer's Signature: **Date: Draft**

Comments / Recommendations:
Issue 06218/T21
Permit Issue Date:
Permit Expiration Date:

I. Purpose of Application/Facility Description

Molded Fiber Glass Company/North Carolina holds Title V Permit No. 06218T20 with an expiration date of September 30, 2023 for a facility that manufactures fiberglass reinforced parts in Morganton, Burke County, North Carolina. A permit application for a significant modification was received on December 7, 2020 and considered complete on December 8, 2020 (fee). Under the permit application, Molded Fiber Glass Company/North Carolina is requesting to correct the boiler rating for boiler ESB3.

II. Facility Description

Molded Fiber Glass Company/North Carolina facility molds fiberglass truck hoods and sleeper cabs for tractor-trailer trucks for Freightliner. The fiberglass parts are molded, placed in jigs and glued together, and then the cabs are touched up with primer.

III. History/Background/Application Chronology

Renewal and Minor Modification issued October 4, 2018, 06218T18.

Minor Modification issued June 21, 2019, 06218T19.

Minor Modification issued August 20, 2020, 06218T20.

Application submitted for Significant Modification to correct boiler rating for boiler ESB3 (added 10/2018) to 10.2 million Btu per hour and add requirements for NSPS Dc. Will also require updating the MACT DDDDD condition.

IV. Permit Table of Changes/Modifications

Page No.	Section	Changes
	Cover Letter	Used current shell language, updated permit numbers, dates, etc. Added 02Q .0515 minor modification statement
	Insignificant activities list	
All	All	Used current shell language, updated permit numbers, dates, etc.
4	Equipment List	Corrected boiler rating for boiler ESB3 from 8.37 to 10.2 million Btu per hour, added reference to NSPS Dc that now applies to the boiler
6	2.1 A	Updated 02D .0521 monitoring language
8-17	2.1 C	Updated 02D .0521 monitoring language, corrected formatting for MACT PPPP condition
18-19	2.1 D	Updated 02D .0515 (added control IDs), updated 02D .0521 monitoring language
20-23	2.1 E	Corrected the summary of limits table for boiler ESB3 for 02D .0503 from 0.56 pounds per million Btu to .054. Added reference to NSPS Dc, correct rule (02D) reference for MACT DDDDD. Added NSPS Dc condition for ESB3. Corrected and updated MACT DDDDD condition for 5 to 10 million Btu per hour and greater than 10 million Btu per hour w/oxygen trim for Natural gas boilers
24-27	2.2 A	Corrected for formatting for MACT WWWW
31-40	3 General Conditions	Updated general conditions with latest version (5.5)

V. Regulatory Review – State and Federal Rules

As noted above, the facility has submitted an application to correct the boiler rating for boiler ESB3 (added to permit 10/04/2018) to 10.2 million Btu per hour. The increase in boiler rating will change the allowable PM limit and the boiler MACT requirements. In addition, the boiler is now subject to NSPS Dc since the size is greater than 10 million Btu per hour.

02D .0503 (2.1 E.1)

The 02D .0503 allowable Particulate Matter (PM) for boiler ESB3 was originally calculated based on a boiler rating of 8.37 million Btu per hour using the formula:

$$E=1.090*Q^{-.2594}$$

where E=Allowable Emission Limit for Particulate Matter (PM) in pounds per million Btu
Q=The total heat input of all fuel burning indirect heat exchangers (boilers) at the facility

The total heat input at the facility at the time the boiler was added to the permit was 5.1 million Btu per hour (ESB2) plus 10.2 million Btu per hour (ESB3) for a combined total of 15.3 million Btu per hour. Using the formula above to calculate the allowable PM as 0.54 pounds per million Btu. The applicant states that the correct allowable emission rate is 0.60 pounds per million Btu per hour but this is incorrect considering the heat input at the facility at the time the boiler was added to the permit. The allowable PM emission rate for boiler ESB2 will remain 0.60 since the allowable emission rate does not reset when addition heat exchangers are added, the allowable emission rate is only set when they are added to the permit or at rerating of the heat exchangers.

02D .0524 (NSPS Dc, 2.1 E.4)

NSPS Dc now applies since the natural gas boiler is 10 million Btu per hour or greater. The boiler is permitted to burn only natural gas and is required to comply with all applicable provisions, including the notification, testing, recordkeeping, and monitoring requirements contained in Environmental Management Commission Standard 15A NCAC 02D .0524 "New Source Performance Standards (NSPS) as promulgated in 40 CFR Part 60 Subpart Dc "Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units," including Subpart A "General Provisions." In addition, the Permittee shall record and maintain records of the amounts of each fuel fired in the boiler **(ID No. ESB3)** during each month. The Permittee shall be deemed in noncompliance with 15A NCAC 02D .0524 if these records are not maintained.

02D .1111 (MACT DDDDD, 2.1 E.5)

The current permit has a MACT DDDDD condition for the 5.1 million Btu per hour natural gas boiler (ID No. ESB2) and the 8.37 million Btu per hour natural gas boiler (ID No. ESB3). Upon review of the current condition it has been determined that the requirements for the ESB2 are incorrect. The condition has requirements for a boiler equal to or less than 5 million Btu per hour and ESB2 is actually 5.1 million Btu per hour and should have the requirements for a boiler greater than 5 million Btu per hour but less than 10 million Btu per hour. ESB3 applicability will be corrected to reconstructed or new units designed to burn gas 1 fuels, with oxygen trim. Changes to the existing condition are as follows:

Applicability [40 CFR 63.7485, .7490(d), .7499(l)]
For the existing boiler (**ID No. ESB2**) (designed to burn gas 1 fuels with a heat input capacity of greater than 5 million Btu per hour and less than 10 million Btu per hour).
For new source **(ID No. ESB3)** (i.e., reconstructed or new units designed to burn gas 1 fuels, with oxygen trim)

Work Practice Standards [15A NCAC 02Q .0508(f)]
The Permittee shall conduct a tune-up of the existing boiler **(ID No. ESB2)** every two years and the new boiler (**ID No. ESB3**) every five years as specified below:

i. As applicable, inspect the burner, and clean or replace any components of the burner as necessary. The Permittee may perform the burner inspection any time prior to the tune-up or delay the burner inspection until the next scheduled or unscheduled shutdown.
ii. Inspect the flame pattern, as applicable, and adjust the burner as necessary to optimize the flame pattern. The adjustment should be consistent with the manufacturer's specifications, if available.
iii. Inspect the system controlling the air-to-fuel ratio, as applicable, and ensure that it is correctly calibrated and functioning properly (The Permittee may delay the inspection until the next scheduled unit shutdown).

iv. Optimize total emissions of CO. This optimization should be consistent with the manufacturer's specifications, if available, and with any NO_X requirement to which the unit is subject.
v. Measure the concentrations in the effluent stream of CO in parts per million, by volume, and oxygen in volume percent, before and after the adjustments are made (measurements may be either on a dry or wet basis, as long as it is the same basis before and after the adjustments are made). Measurements may be taken using a portable CO analyzer.
vi. For the new boiler (**ID No. ESB3**) with oxygen trim, set the oxygen level no lower than the oxygen concentration measured during the most recent tune-up.

[40CFR 63.7500(a), (e), 63.7540(a)(10), (a)(12)]

i. Each biennial tune-up shall be conducted no more than 25 months after the previous tune-up (**ID No. ESB2**).
j. Each 5-year tune-up shall be conducted no more than 61 months after the previous tune-up. The initial tune-up shall be conducted no later than 61 months after the initial startup of the source (**ID No. ESB3**). [40 CFR 63.7515(d)]
k. If these units are not operating on the required date for a tune-up, the tune-up must be conducted within 30 calendar days of startup.

Reporting Requirements

The Permittee shall submit compliance reports to the DAQ as follows:

i. Reports for existing source **ESB2** shall be submitted on a 2-year basis. The first report shall cover the period beginning on May 20, 2019 and ending on December 31, 2020. Subsequent 2-year reports shall cover the periods from January 1 to December 31. The Permittee shall submit the compliance reports postmarked on or before January 30.

ii. Reports for new source **ESB3** shall be submitted on a five year basis. The first report shall cover the period beginning on the compliance date specified in Section 2.1 E.5 g (i.e., start-up) and ending on the earliest December 31st less than five years from the compliance date. Subsequent 5-year reports shall cover the periods from January 1 to December 31. The Permittee shall submit the compliance reports postmarked on or before January 30.

and

The compliance report must contain the following information:

i. Company name and address;
ii. Process unit information, emissions limitations, and operating parameter limitations;
iii. Date of report and beginning and ending dates of the reporting period;
iv. Include the date of the most recent tune-up for each unit required according to Section 2.1 E.5.f.
v. Include the date of the most recent burner inspection if it was not done as scheduled and was delayed until the next scheduled or unscheduled unit shutdown.
vi. Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

VI. Facility Wide Air Toxics

Currently the permit does not contain conditions for 02Q .0711 or 02D .1100. On April 19, 2013, the facility requested removal of the NC TAP limits pursuant to HB 952 as all toxics emissions are attributed to MACT sources and the facility was found not to pose an unacceptable risk. This modification does not affect this status.

VII. Facility Emissions Review

There are no emissions increase for this modification.

VIII. Facility Compliance Status

The latest inspection for this facility was on January 10, 2020 by Patrick Ballard of the ARO. Based on the inspection report, the facility was found to be in compliance. The inspection report noted an error in the boiler rating for ESB3. We requested the facility submit an application to correct the error. Application 1200094.20B was submitted on December 7, 2020 to address this error.

IX. Draft Permit Review Summary

UPDATE AFTER REVIEWThe facility had the following comments and requested changes to the draft permit.

The requested changes have been incorporated into the final permit.

X. Public Notice/EPA and Affected State(s) Review

A notice of the DRAFT Title V Permit shall be made pursuant to 15A NCAC 02Q .0521. The notice will provide for a 30-day comment period, with an opportunity for a public hearing. Consistent with 15A NCAC 02Q .0525, the EPA will have a concurrent 45-day review period. Copies of the public notice shall be sent to persons on the Title V mailing list and EPA. Pursuant to 15A NCAC 02Q .0522, a copy of each permit application, each proposed permit and each final permit shall be provided to EPA. Also, pursuant to 02Q .0522, a notice of the DRAFT Title V Permit shall be provided to each affected State at or before the time notice is provided to the public under 02Q .0521 above. The State of Virginia and the Forsyth County Local Program are affected state/local program within 50 miles of the facility.

The following comments were received**:** No additional comments received from the public or EPA

XI. Conclusions, Comments and Recommendations

PE Seal

Not required.

Zoning

Not required.

Recommendations

The permit modification application for Molded Fiber Glass Company/North Carolina has been reviewed by DAQ to determine compliance with all procedures and requirements. The DAQ has determined that this facility is complying or will achieve compliance, as specified in the permit, with all requirements that are applicable to the affected sources. The DAQ recommends the issuance of Air Permit No. 06218T21.